



AGROZ GROUP

Sustainable Agriculture & Food
From Farm to Fork Within Hours

Progress Report – November 2021 | Ver.6.0

CONTENT

- Part 1 Impact of Climate Change
- Part 2 Vertical Farming
- Part 3 Overview
- Part 4 Milestones

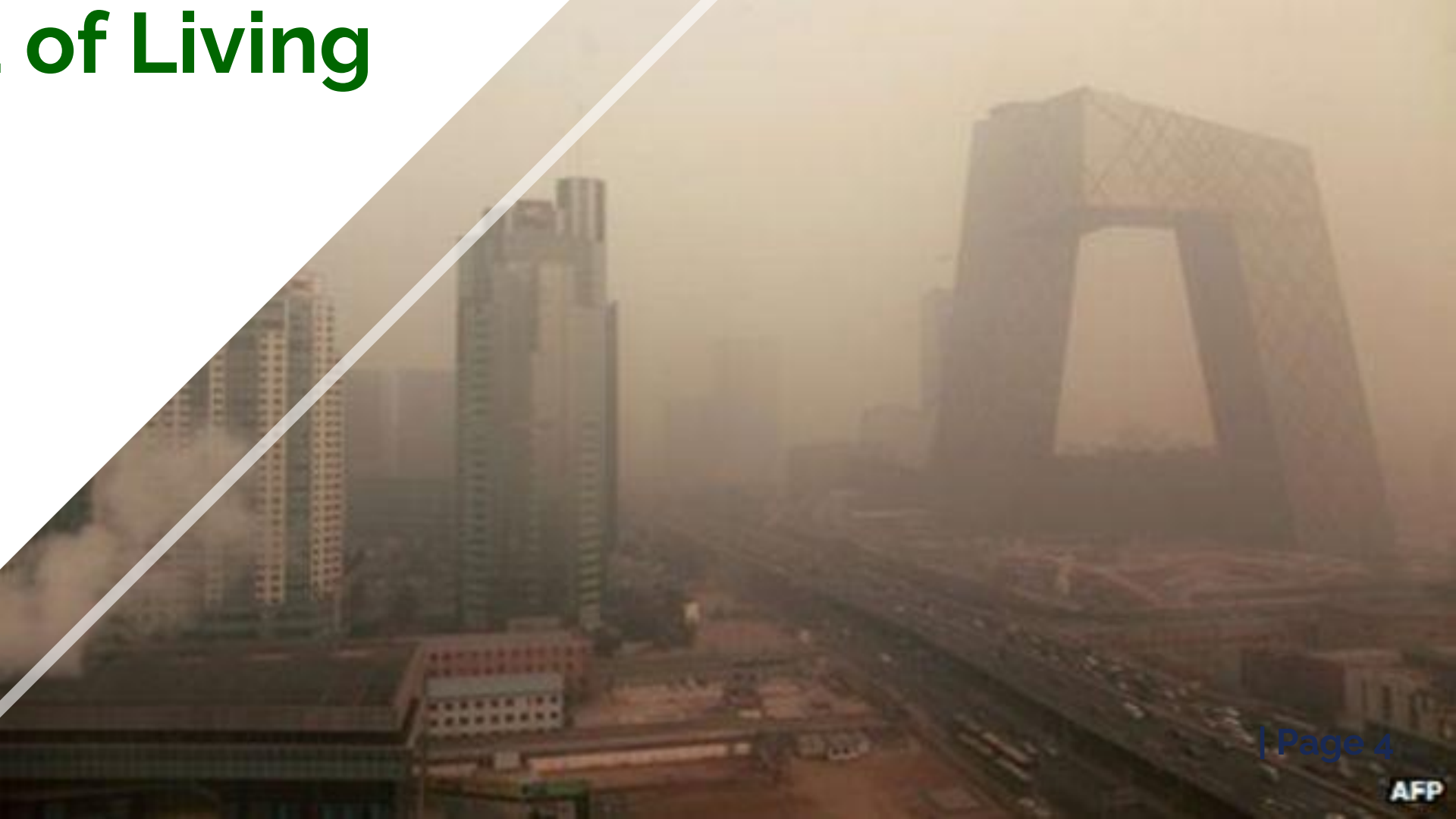


Impact of Climate Change





Urbanisation & Standard of Living





**Traditional farming is
destroying the
earth ecosystem**

Impact of Covid

1

JOBS AND INCOME: LOSS

Jobs: 2.4 million loss caused by COVID-19 (May 2020)
Household income: RM95 billion



2

AGRICULTURE SECTOR: DECREASE LABOUR FORCE

GDP contribution: 8.6% (2017) and 7.5% (2018)
Decreasing labor: 12.47% (2015) to 10.96% in (2019)
Issues: labor shortages in agriculture, mobility restriction and loss of confidence in product quality



3

FOOD IMPORTS: INCREASING

An average growth of 6.5% per year RM30 billion (2010) increased to RM50 billion (2019)
Realign country's agriculture sector by optimising land and prioritise planting based on demand



4

FOOD SECURITY: HIGH ALERT

World population growth: 7.0 billion to 9.1 billion by 2050
Food supply demand to increase by 70%



Food and Agriculture Organization
of the United Nations

5

FOOD SAFETY: ARISING CONCERNS

Use of chemicals and pesticides, level of hygiene in handling, origin traceability
Lack of confidence among consumers



6

TECHNOLOGY: POOR EXPLOITATION

Global smart farming market: USD23.4 billion by 2025
5G in Malaysia: Potential contribution of RM12.7 billion to GDP (2021-2025)

Bloomberg





What is Vertical Farming?






Saving the Earth Resources

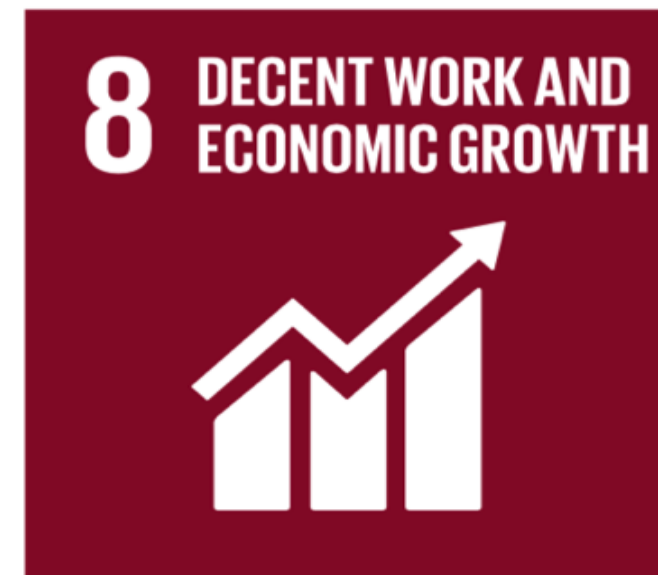
			
24/7 growing, shielded from the elements	No pesticides, fertilizers or herbicides	70% less water than traditional growing	~Zero water pollution

Efficient & Effective Utilisation of Resources

Vertical farms typically employ one of three soil-less growing methods, which can also be closed loop (zero-waste) systems:

		
Hydroponics Plant roots are submerged in a nutrient solution	Aeroponics Nutrient mist is sprayed directly onto plants' dangling roots	Aquaponics Fish in indoor ponds release nutrient-rich waste into water, feeding plants via hydroponics
70% less water than conventional farms	95% less water than conventional farms	Zero waste Plant-filtered wastewater is recycled back to fish ponds

Agroz Addresses 10 of 17 of SDGs

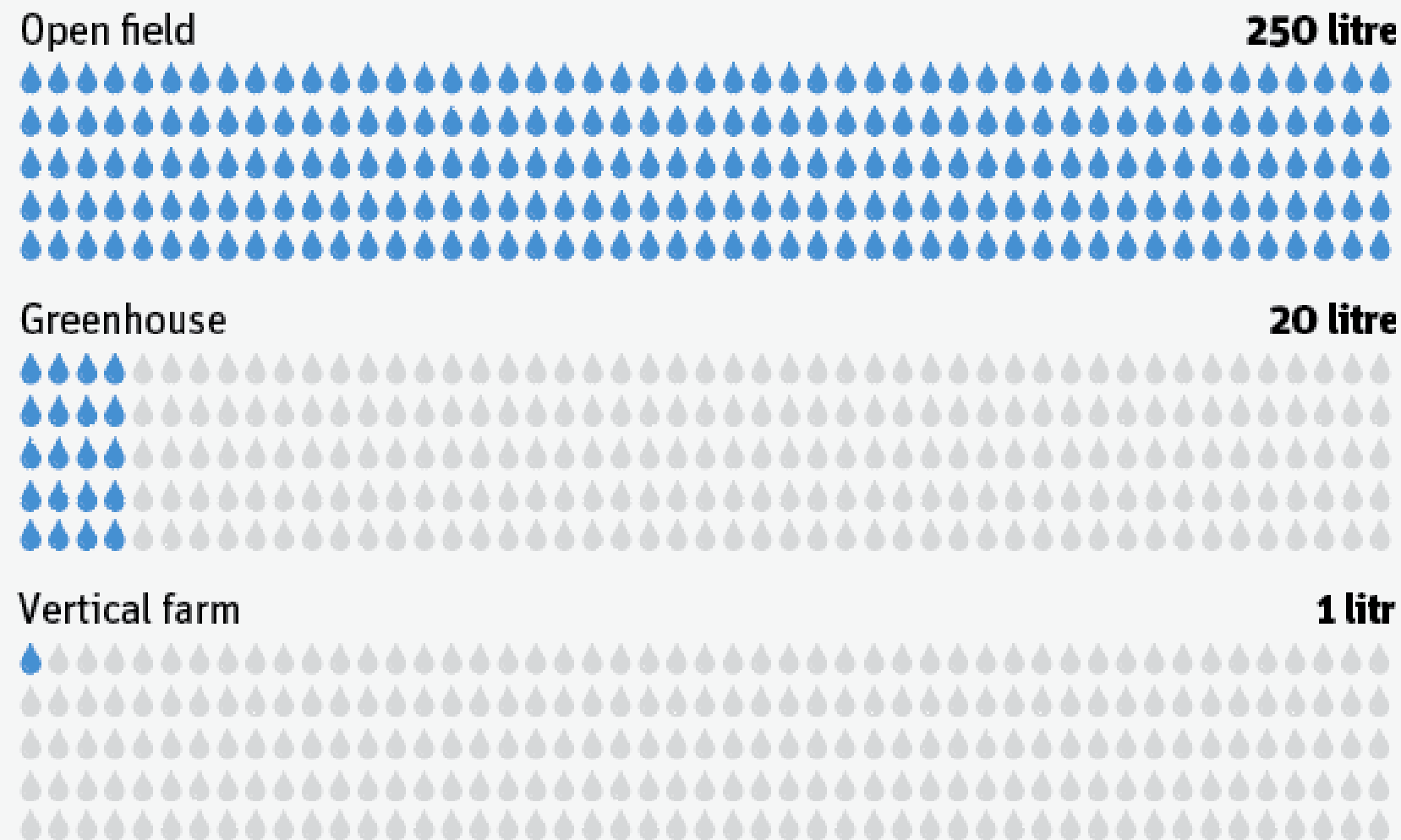


Yield & Potential of Vertical Farming

The yield and potential of vertical farming

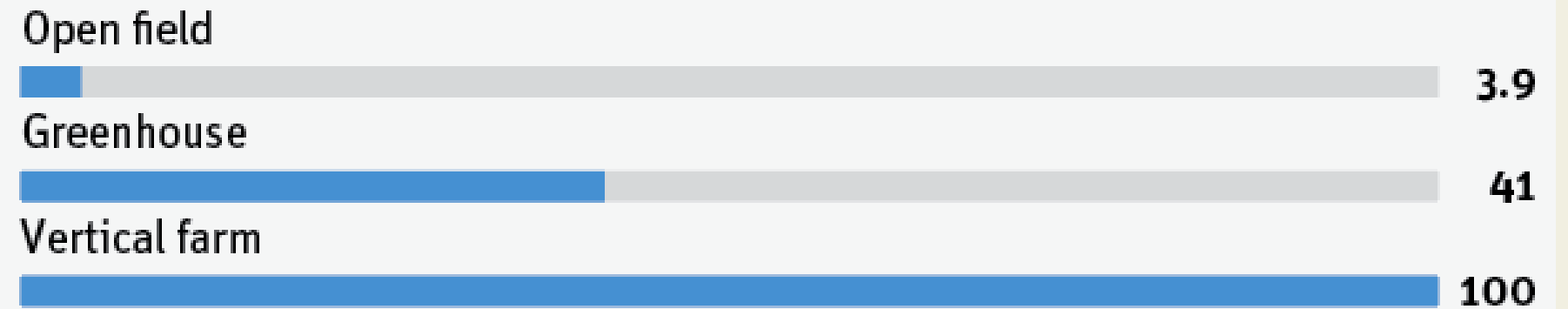
The market opportunity for vertical farms is huge. Barclays Research analysts estimate the size of the global fruit & vegetable market is roughly \$1.2tn (£800bn), and calculate that the addressable produce market for vertical farms is closer to \$700bn (£513bn), leading to an approximately \$50bn (£36.7bn) market opportunity. Plus, vertical farming boasts some environmental benefits, as produce requires less water and space to grow

Water used to grow 1kg of lettuce



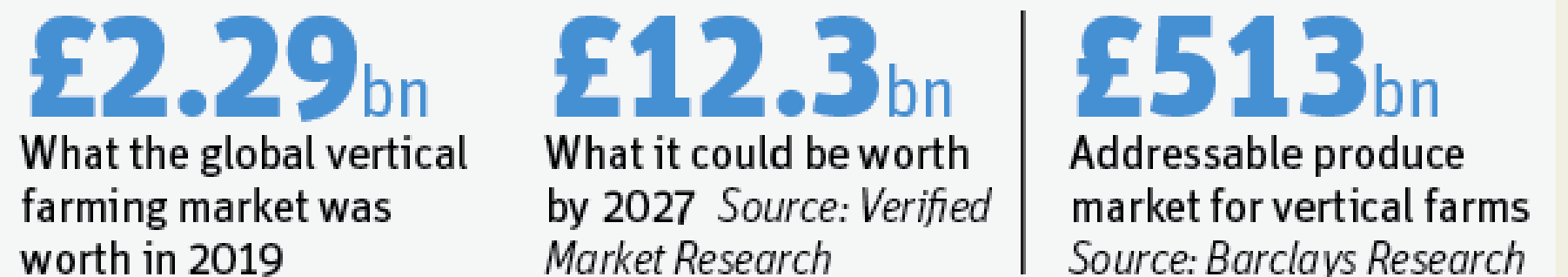
Source: Plant Lab analysis of academic literature

Lettuce yield per square metre of ground space (kg)

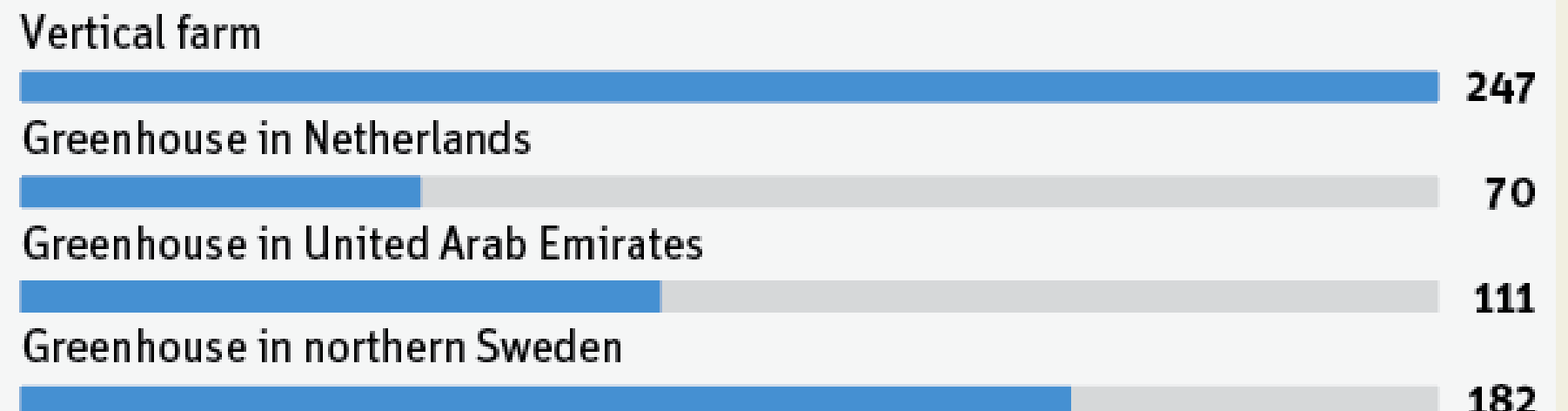


Source: Plant Lab analysis of academic literature

The market opportunities for vertical farming



Purchased energy use to produce 1kg of lettuce (kilowatt hours)



Source: Graamans et al, Delft University of Technology/Wageningen University



Overview

Agroz Indoor Vertical Farms (Plant Factory)

Controlled Environment Agri, Food Safety, Food Security, Sustainability



Our Mission

OVERARCHING OUTCOMES AND OBJECTIVES IN DRIVING VALUE CREATION WITHIN THE COMMUNITY



New income stream

Tangible income generating avenue for people affected by job losses at this critical stage, as well as to provide additional income for individuals arising from smart vertical farming activities



Entrepreneurship

Nurture local entrepreneurs around the country to participate in the smart farming sector in order to generate decentralised economic generation model, whilst serving local communities



Food security & safety

Cultivation of clean, fresh and traceable vegetables close to communities to address food safety and security, reduce cold-chain, build trust in farming with localized production and consumption

Business Model

Our business model consists of 3 main strategic business units (“SBU”). Each SBU is a profit center, and integrating those 3 SBUs will create tremendous synergies and value for all stakeholders.



Vertical Farm Modules



Characteristic:

- Modular vertical farming solutions
- Modules are 6-8 Layers of racks (per deck)
- Each layer can have 54 holes
- Each layer can be configured with differing lights to support all stages and varieties of plant growth
- Modules can be stacked up to be single or double decked
- Modules can be clustered or zoned together
- Each module and/or cluster can grow specific types of vegetables or plants with differing nutrient requirement
- Covers different stages of crop development: germination, seedling, vegetative
- Integrated gravity-driven water circulation
- Supports large variety of crop cultivation

Insured by:

Certification: (over time, est. 12 months)



Agroz Clean, Fresh and Quality Vegetables

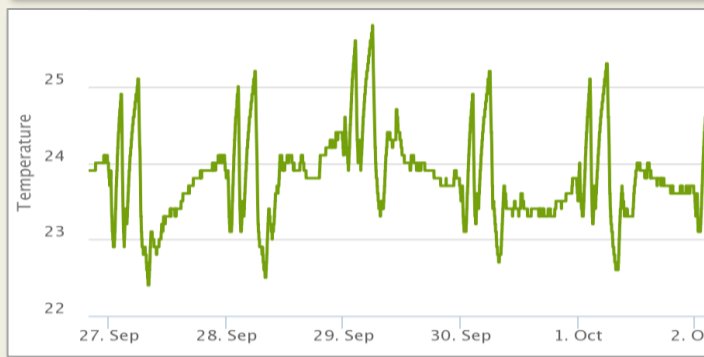
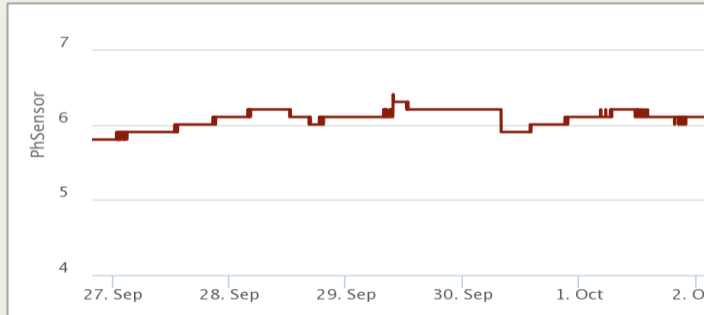
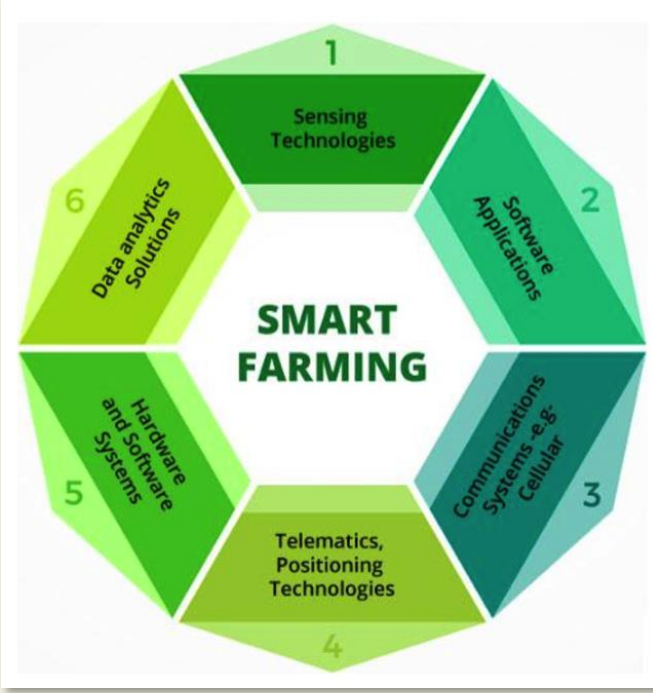
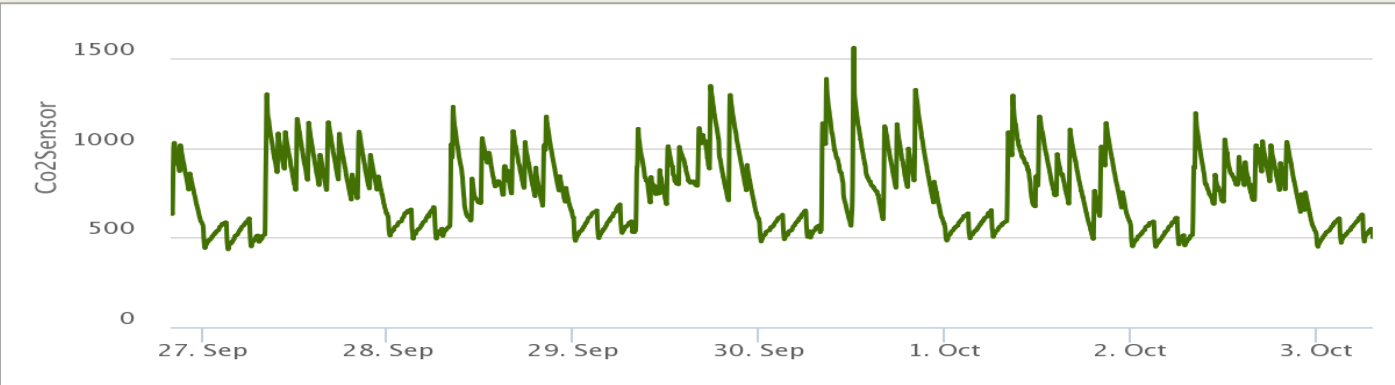
Growing Food Within the Community using IR4.0 Technologies



Agroz grows **clean, fresh and happy** vegetables in our technologically advanced, precision controlled Indoor Vertical Farms located at your friendly neighbourhood.

The vegetables are grown in a **safe and sustainable manner** with **Non-GMO seeds** using **organic nutrients** that are free from harmful chemicals and **no pesticides**.

The Agroz Vertical Farms produce **sweet, crunchy, nutrient rich** vegetables that will leave a flavourful after **taste to be experienced and well remembered**.



Benefits of the Agroz Plant Factory

Win-Win for the Community, People, Planet and Agroz

Benefits for Asset Owner

- Demonstrates asset owner's commitment to Innovation and High Technology businesses involved with Food production
- Higher yield and potential capital gains from use of asset
- Support ESG Investment
- Create awareness & attention to the asset owner. Visitors including media, investors, leaders & dignitaries from all over the world to Asia's Largest Indoor Vertical Farm
- Increase Green Building Index (GBI) of asset owner
- Smarter utilization and occupancy of asset owner (90,000 sq ft leading to 270,000 sq ft)

Direct from "Farm to Fork"	Reduce Distribution Complexities	Fresher and Higher Quality	Safe and Healthy	Increase Production at Lower Cost
<ul style="list-style-type: none"> • Produce closer to food consumption • Direct supply to local markets, restaurants and households • On-demand supply to reduce wastage • Match demand and supply through subscription and contract farming 	<ul style="list-style-type: none"> • Reduce layers of distribution and middle men • Possibly lower cost of distribution and reduce cold-chain • Just in-time (JIT) market delivery • Disrupt the Distribution Value Chain 	<ul style="list-style-type: none"> • Fresh produce on table within hours rather than days • Reduce or totally eliminate storage and refrigeration • Freshness you can experience • Freshness You can See, Hear & Taste 	<ul style="list-style-type: none"> • Zero harmful chemicals. No pesticide, fungicide, herbicide • Precise use of nutrients • Minimal or zero spoilage that reduces bacterial contaminant 	<ul style="list-style-type: none"> • Higher production per square meter compared to conventional methods • Lower energy cost • Reduce green house gas emission and minimise carbon footprint • Good for People and Planet



CONTROLLED-ENVIRONMENT AGRICULTURE (CEA)



FRESHER, TASTIER, CRUNCHIER!



OPTIMAL NUTRITIONAL QUALITY



HYDROPONIC



INDOOR HIGH-TECH VERTICAL FARM



BEYOND ORGANIC



PESTICIDE-FREE



READY TO EAT



TENDER LOVING CARE

From Agroz Malaysia's Freshest Vertical Farm...

Available Direct to Consumers and Businesses Online, Offline & O2O



From Mid November 2021





Milestones

Agroz Container Farm (Phase 1)

Each container produces up to 200kg of vegetables per month, equivalent to 2 - 3 acres of traditional farmland

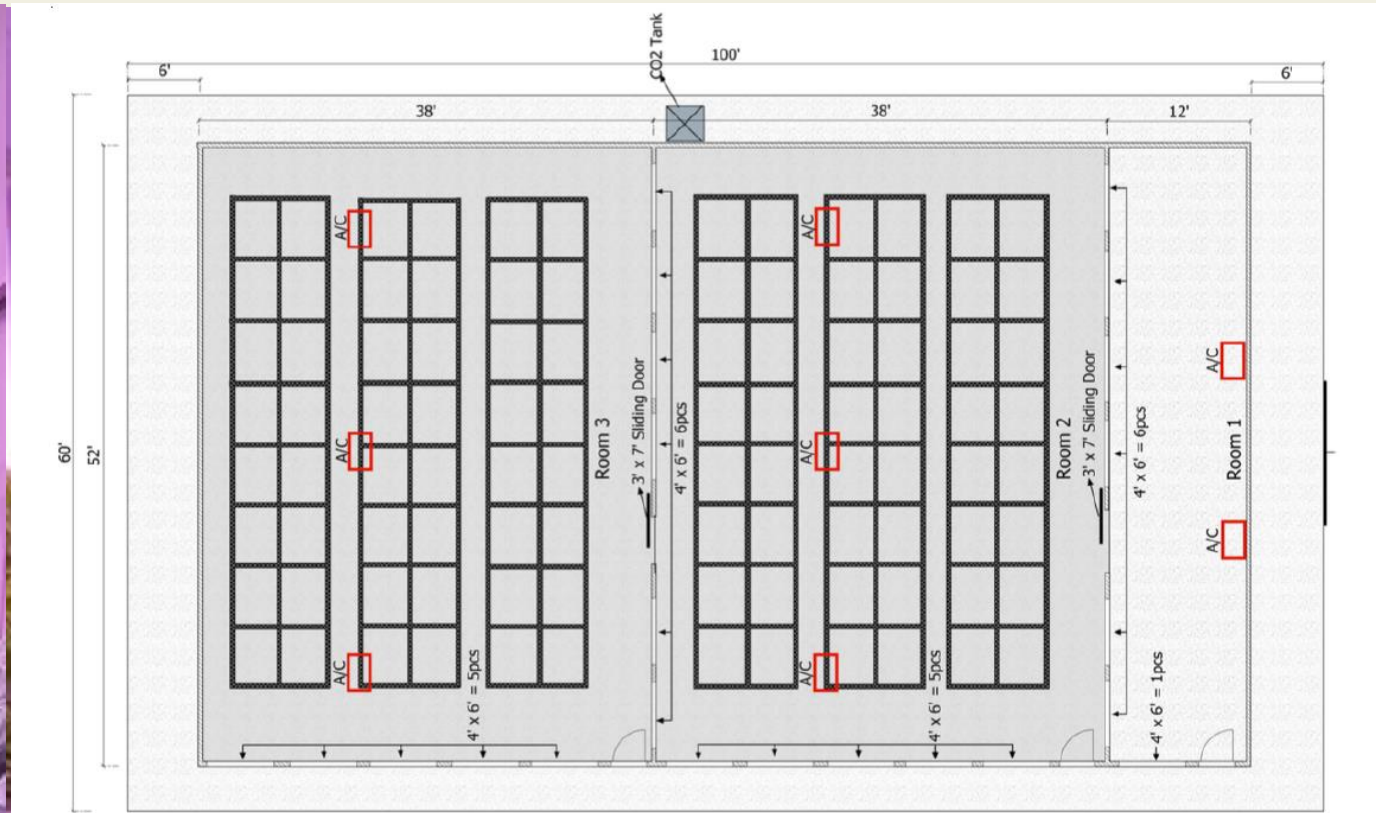


Agroz's Produce – Fresh, Crunchy, Nutritious



Agroz Warehouse Farm (Phase 2)

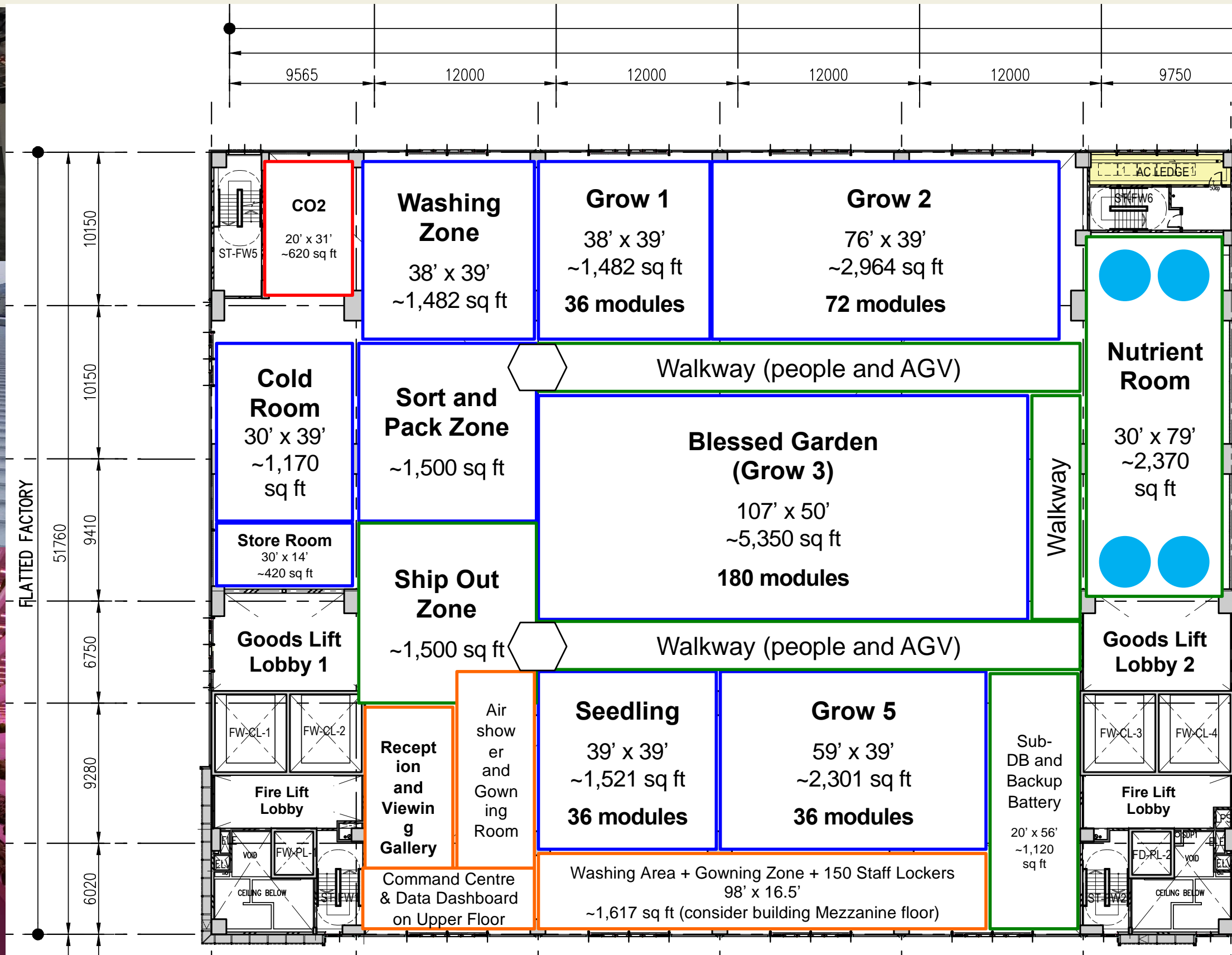
3,000 square feet @ Sungai Buloh (production: 3 tonnes per month)



September 2021

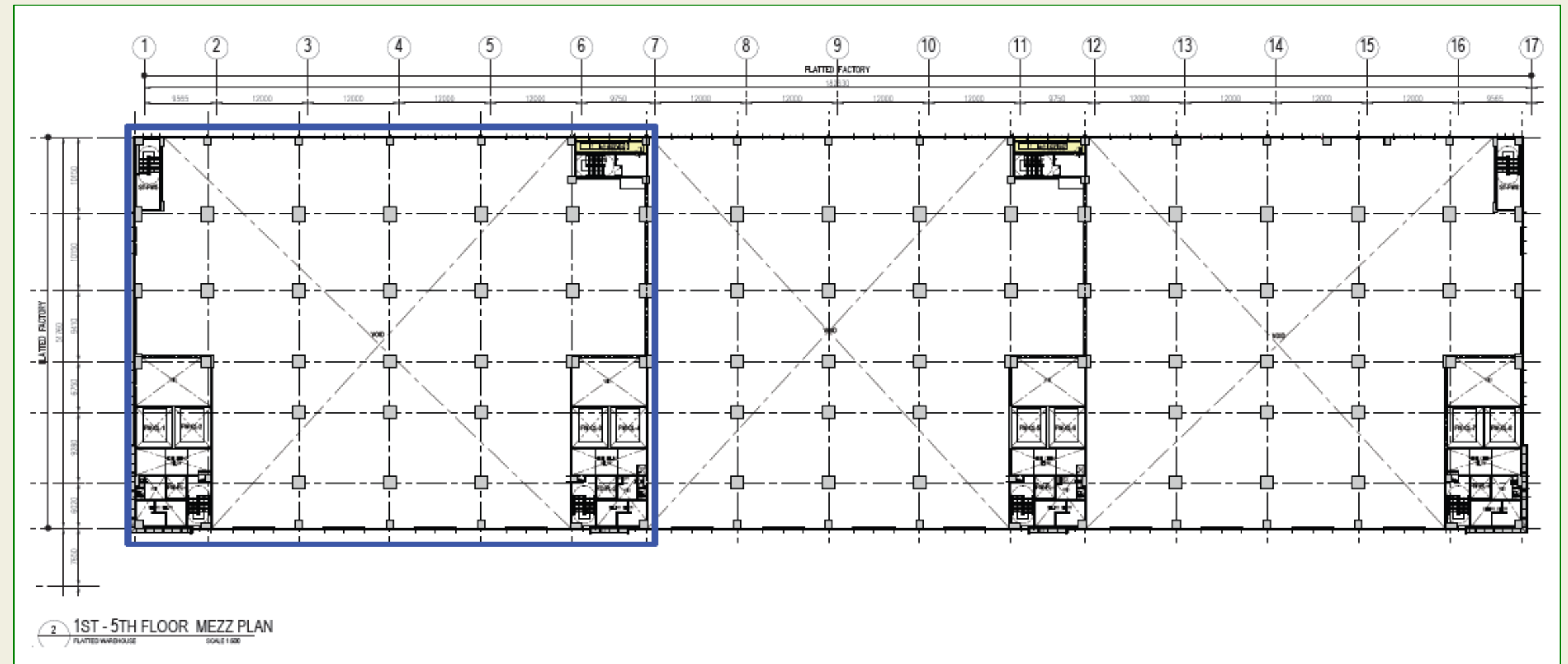
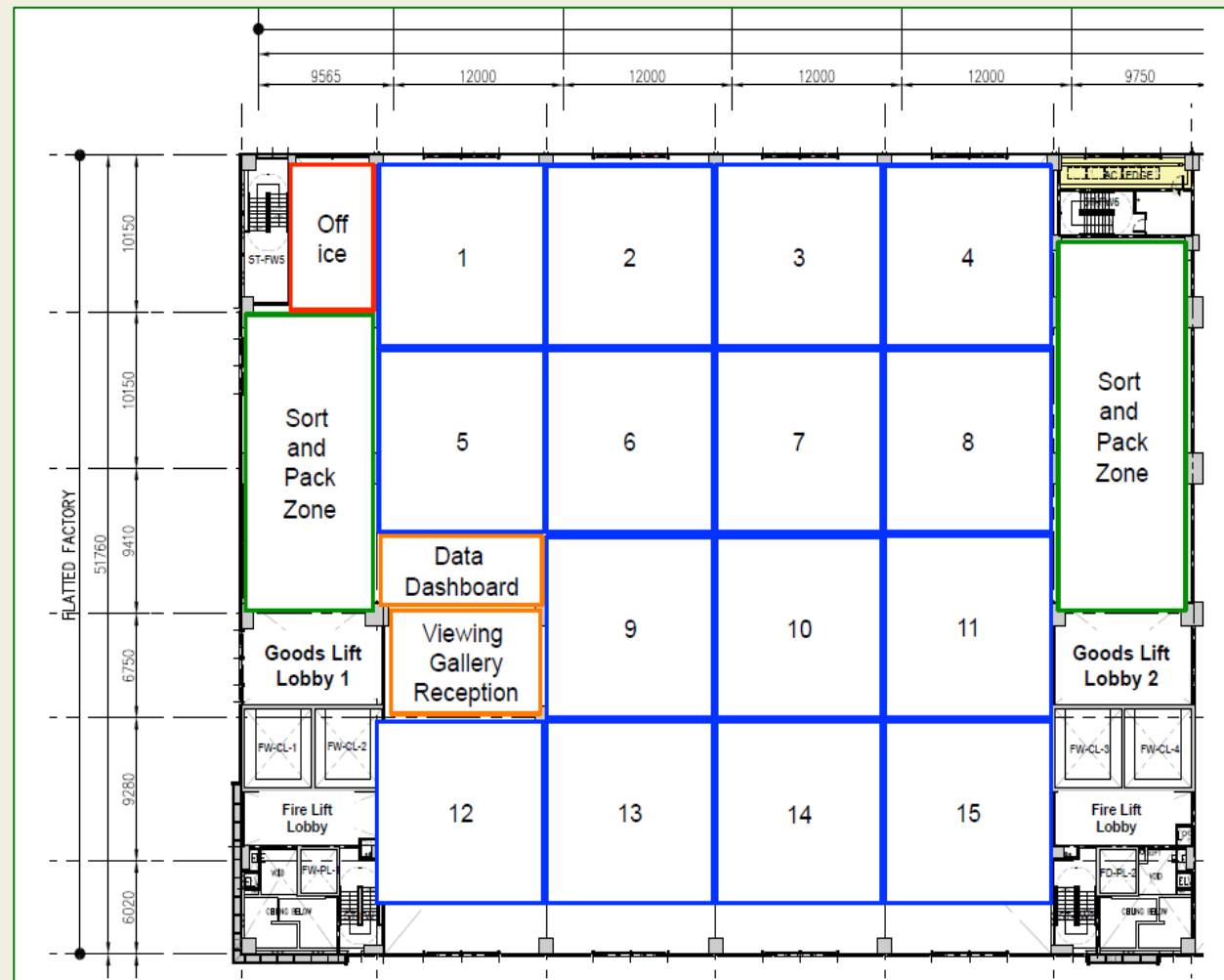
Malaysia's Largest Plant Factory

@ Hap Seng Business Park




Agroz Plant Factory Design

Each 30,000 square feet produces 1 tonne per day, 30 tonnes per month



Floor Plan of the Farm (30,000 Square Feet)

Phase 1 of the Farm - 30,000 of 90,000 square feet

A close-up photograph of a purple leafy vegetable, likely a variety of lettuce or chard, with vibrant purple and magenta leaves. The leaves are densely packed and show detailed vein patterns. The lighting is soft, highlighting the texture and color of the foliage.

Q&A



Thank you for your continued support in our efforts to contribute to the SDGs.

Contact



William Du

+60162309909

william@agrozgroup.com